

TAPE # 3

Dr. Michael DeBakey and Don Schanche
Pierre Hotel, New York, 3/6/72

DR. DeBAKEY: Have you been busy?

SCHANCHE: Yeah, I've been out to California, down to Palm Beach
to see Elmer and I've gone to Montana to see Chet Huntley.

DR. DeBAKEY: What's going on out there?

SCHANCHE: Oh, Today's Health asked me to stop in on the way home
from Los Angeles this last week to write a piece about
his views of retirement, you know, since he's not retiring.
He also is a pretty.....rather dull man. I don't know
if you know him.

DR. DeBAKEY: No, I don't know him.

SCHANCHE: There's not a spark of color.....at all. So, it's sort of
like squeezing juice out of a rock to get material out of him.

DR. DeBAKEY: Didn't get much out of him?

SCHANCHE: But I did a piece for Today's Health. Beautiful country out
there.

DR. DeBAKEY: I haven't been out there in a long time, but I was out
there years ago, in that part of the country, and it is
beautiful, you're certainly right. I missed Elmer Bost,
I was supposed to have dinner with him in Florida last week.

SCHANCHE: Yeah, he and Dora told me they were expecting you but they misunderstood that.....

DR. DeBAKEY: So, I got a raincheck on it and I'll try to seem him later on.

SCHANCHE: Try to will some influence on him.

DR. DeBAKEY: Well, hopefully yes. He's invited me to come and talk to him about it, and I've been trying to arrange to get out there. I don't know how much longer he'll be there.

SCHANCHE: He called me yesterday, no day before....Monday----Friday, and he was here for a board meeting and going back an hour or so after he called me and said they were going to be down there until March 21st, I think. And then would be coming back up here, at the end of March.

DR. DeBAKEY: He had some kind of illness there for a while.

SCHANCHE: Yes, he had Salmonella. He went to Europe and he caught it staying up late, drinking and eating in a second rate place.

DR. DeBAKEY: What's he doing in a second rate place?

SCHANCHE: I don't know----he was out carousing with his friends, I guess.

DR. DeBAKEY: They took him to it. I'd get rid of those second rate friends, after that.

SCHANKE: He was pretty sick.

DR. DeBAKEY: Well, I had a very nice trip and it was a good trip for me , as a matter of fact. I went to Munich and met Princess Liliane, she had called me and asked me to come. They have a beautiful hunting lodge in the Austrian Alps, just below Insbruch and Salisburg, in that area. It's really lovely. It is quite isolated and I stayed with them about two and a half days and then I went from there to Tokyo, and I was in Tokyo two.....

SCHANKE: Did you go right through to Tokyo from Munich?

DR. DeBAKEY: Yeah, well actually from.....

SCHANKE: It's a long haul...

DR. DeBAKEY: It is a long haul, a very long trip. I went from there to Hamburg and picked up the flight from Hamburg which goes over the Pole. Actually goes to Anchorage, then comes down. Then I had two full days there, very full. Gave four lectures and had some conferences and they had luncheons and the Ambassador had a luncheon

DR. DeBAKEY: for me in the Embassy. It is, incidentally a beautiful building there, lovely Embassy.

SCHANKE: This is the same Embassy that.....

DR. DeBAKEY: Oh, yeah, well, you see, it was built during the Hoover administration. Built in the old classical style, a beautiful building.

SCHANKE: Yeah, I've been in there many times. I was correspondent in Tokyo for a couple of years. I used to work there.

DR. DeBAKEY: Were you?

SCHANKE: Yeah, years ago. During the Occupation.

DR. DeBAKEY: I had forgotten that. That's where McArthur stayed, didn't he?

SCHANKE: McArthur moved out of the Embassy about a few years, or a year before the peace treaty was signed. Murphy was first ambassador after the war and he was in some time before the peace treaty was

DR. DeBAKEY: Well, the ambassador there was a man by the name of Meyer now. He is leaving though, I think in another month or so. There will be a new ambassador. But he was very nice and he had a very nice luncheon for me there.

DR. DeBAKEY: And then the Japanese Medical Association held a
for me there....

SCHANKE: Did you deliver a paper there?

DR. DeBAKEY: Oh, yes, I had four papers. This was something actually
sponsored by the Department of Commerce. They were
having an exhibit there of medical electronics equipment
and so they wanted someone representing medicine to
.....that sort of had something to do with the area, to
be there, and they asked the Japanese Medical Association
who they would like to have, which was interesting. And
they nominated me there, the Department of Commerce
asked me if I'd go. I have many good friends in Japan
and many good.....many of my boys who I'd trained.

SCHANKE: Speaking of medical electronics, incidentally, do you know Lou
Delgercio? He's ---I guess he's at Einstein---no he
isn't either he's some place else now, but there was a
reason for a flurry of publicity. He lives not far from
me ----on a new device of some kind, I really don't
know what, how this thing is put together or what it
is, but it's a new method of doing arteriograms without

SCHANKE: injecting stuff in the blood, or without the catherization.
And I wondered if you'd heard about that or knew about it.

DR. DeBAKEY: For doing arteriograms or visualizing the artery?

SCHANKE: Well, visualizing the arteries , I guess.

DR. DeBAKEY: No, I'm not familiar with it.

SCHANKE: I'll find the story on it and send it to you.

Well, last time we talked we left off at during your college years and had a long discussion of your views on medical school curriculum. I would actually like toif you don't mind , go back to the college years and try to draw more on your memory than you did about people, specific things that began to influence you as a doctor and as an individual in your thinking.

DR. DeBAKEY: Well, I suppose, actually, before I went into medical school I became more and more involved in biology and zoology. This professor of zoology that I knew in high school.....in my freshman and sophomore year in college, had a great deal of influence on me because he sort of picked me out as a student and saw I was very interested and he liked the way I dissected the cats and so on, he

DR. DeBAKEY: involved me more and more in what they were doing and this was in my classwork, he felt that classwork seemed toquite in order and that I never had any trouble with my classwork, I was doing well. He liked the way I dissected cats and he used to show it to the other students, the neatness of it. He finally asked me if I'd like to do extra work. He also liked the way I drew, the various things that we had to draw. I did it by stipling, you know what stipling is?

SCHANKE: Yeah, I do. It's a very difficult technique to learn.

DR. DeBAKEY: Well, I sort of picked it up. I liked it and saw it being done by one of the artists there and so I had him show me a little bit more about it and he saw I was interested and so I learned it. So, I did....I became a student instructor in zoology. Then during the summer, I became a full time instructor. There were lots of students that came there in the summer to do graduate work, that took courses, and so he put me in charge of one of the courses, asked me if I'd like to take charge of one of the courses, there I was student instructor

DR. DeBAKEY: giving course work to.....

SCHANKE: You were actually doing the lectures and everything...

DR. DeBAKEY: Yeah, yes, I kept ahead of them and I was about two or three days ahead of them. In addition to that, I prepared all of the animal work for them, you know, he used to bring the cats in and I'd chloroform them and then do the dissections. Chloroform them and actually embalm them and then show them how to those who were taking that particular type of class, I'd instruct them in dissection and then I did some professional drawing for him, for example, in embryology they wanted the chick embryo in the various stages. I took it from the egg stage to the fertilization and then thru to the various stages of the development of the embryo. Actually drew them from the cross-section slides, and they used them for many years, I don't know whether they still use them or not, but they used them for many years. These were large drawings, you see, stippling. Very tedious work, but I was paid for it, made money.

SCHANKE: Where did you find the time to do this....had you gotten on to your three or four hours a night sleep?

DR. DeBAKEY: Yeah, I was working. I'd put in....I'd start in at five or six o'clock in the morning and worked till late in the evening. I'd put in twelve, fourteen hours a day. Even then. In addition, I was also taking some course work myself, because I wanted to get into medical school at the end of two years and I also wanted to get my bachelors degree.

SCHANKE: Pre med that was normally three years, wasn't it?

DR. DeBAKEY: Yeah, about three years or ,there were some students who took actually longer to get their bachelors degree. Four years. I wanted to get my bachelors degree and yet I wanted to get into medical school in two years, so I was able to get into medical school with all the requirements at the end of two years, and with the additional course work that I took, even after I got into medical school, because I worked in the summer, I got my bachelors degree with the students that started with me. Who started with me. So that's one reason that I feel very strongly that curriculum ought to be arranged so that students who are able to do this can do it, in

DR. DeBAKEY: other words if you don't have a rigid curriculum, so you cannot get your bachelors degree unless you work four years in college and so on.

SCHANKE: You said the biology professor had a profound influence on you.

DR. DeBAKEY: Yeah, he, well

SCHANKE: But you worked for him.....so, philosophically, how did he affect you?

DR. DeBAKEY: Well, he affected me first by the fact that he was dedicated to his work and he was so enthusiastic about it he transferred that enthusiasm to me. He tried actually to keep me in biology, zoology. He wanted me to stay and make a career in zoology. He wanted me to go to Woods Hole, he had it all arranged for me to go up there one summer. He really tried to psway me from going to medicine, he said I was a natural in zoology. I used to go out and get, for example, one of the courses in the summer was concerned with entomology and so they were studying different kinds of animals, the different stages of development in the animal world, and one stage was, of course,

DR. DeBAKEY; the reptile stage, the first fascinating step in the evolution. So, I used to go out in the summer, I mean on Sunday, into the marshes down south of New Orleans and collect reptiles of various kinds. I remember one time I came back I was staying in a boarding house, and I had collected a bunch of snakes and , you know, I used to catch them with a forked stick and put them in a gunny sack, and it was some cotton mouth, but you learn how to handle them. And I put them in a gunny sack and I was delayed getting so I got back just as the---in this boarding house we had our dinner on Sunday at noon----and I got there just in time, they were sitting at the table and I wanted to get my dinner, so instead of going to the laboratory with the snakes, I went to the boarding house. I put my gunny sack down just behind the door and we had hardly sat down, I mean I had hardly, they were already sitting down, I had hardly sat down before I noticed the landlady looking with a frightened expression on her face, in the door that led into the dining room, there was a snake out there, he'd gotten

DR. DeBAKEY: out somehow. Fortunately, I jumped up and caught it again and put it back in the gunny sack. She really raised hell with me about it, and she was so upset that I had a hard time convincing her that this would never happen again. I didn't want her to throw me out. I explained why I had done it because I was in a hurry to get back, didn't want to go by the laboratory and miss my meal. Well, she was kind enough, she liked me and she was kind, so I promised her that it would never happen again. But that was the sort of thing that we did and , you know, it was very enjoyable , I really enjoyed it very much. Most of these students were school teachers who were coming and getting additional work, credits, in the summer. So I really had a bunch of school teachers, most of them.

SCHANKE: They were much older than you.

DR. DeBAKEY: Well, they ranged from the girls who had been out of college one or two years to some who were thirty five or forty years of age.

SCHANKE: How old were you then, about nineteen?

DR. DeBAKEY: Yeah, you see, I was about nineteen, because I went

DR. DeBAKEY: to college when I was seventeen. That was about....
I was eighteen or nineteen. But, interestingly enough,
I didn't have any trouble with them, because they were
very nice and they were very nice to me and we got
along fine, I mean, we had fun together, you know,
I mean it was not a.....they didn't seem to mind
the fact that I was too young....younger than they were,
because they , I had this.....they found out you know that
I did know what I was talking about and that I was
well versed in the things that we were going over, and
when I didn't , I found a way to kind of find the answer
for them. When I didn't know, I just simply said I didn't
know and we'd look it up together. We got along fine.
In fact, I did this two years in a row, I did it two summers.

SCHANKE: Well, you started out to mention the philosophical influence
that this zoology professor

DR. DeBAKEY: Well, he was so, as I say, really enthusiastic and dedicated
he was very open and easily accessible. He was quite
scholarly and yet not stuffy. He would have us to his
home and he would stimulate you to want to learn. He had
that ability to transfer, so to speak, this sense of enthusiasm

DR. DeBAKEY: for learning.

SCHANKE: Was he sort of the first aacademic you came across in your life who was just open and natural and...

DR. DeBAKEY: Yes.

SCHANKE: Led you to an excitement in knowledge without a feeling that there was some kind of barrier between you and what he knew .

DR. DeBAKEY: That's right. He kind of opened my eyes to sort of the academic world. He made it seem that the academic world was very exciting and fascinating and interesting. I think it gave me a kind of sense of values that I hadn't had before.

SCHANKE: This would be partly from giving you pretty big responsibilities as astudent....recognizing you....

DR. DeBAKEY: Yes, that's right, although I must say, in that sense, I learned to accept responsibility from my father.

SCHANKE: Well, it must have been gratifying to you to have your willingness to work and not only accepted but your status confirmed as a.....

DR. DeBAKEY: Yes, well, you know, I must also say that I was not aI wasn't a book worm. I played in the band, I went

DR. DeBAKEY: out and practiced with the band. I was interested in sports and played in the freshman, what we called the scrub football team. It was really used for the other team to practice against. I played in basketball. And handball.

SCHANKE: Did you ever get hurt in sports activity when you were young?

DR. DeBAKEY: Yeah. I got badly hurt playing baseball.

SCHANKE: How?

DR. DeBAKEY: I was catching and I In those days you didn't always wear masks although you were supposed to.

SCHANKE: They didn't always have them.

DR. DeBAKEY: They weren't always sometimes, if I couldn't find a mask, we'd go ahead and start playing. A fellow tipped the ball and hit my eye, my right eye, and for a while blinded me in that eye.

SCHANKE: How long a time....momentarily, or a matter of days?

DR. DeBAKEY: No, a matter of days. They were fearful I was going to loose the eye, loose sight of it, but the ophthalmologist worked on it, took very....it finally came back, but.....

SCHANKE: Was this when you were at Tulane, or in high school?

DR. DeBAKEY: This was when I was in high school. So----it then finally came back, seemed alright. The interesting thing is I didn't fully appreciate the fact that I was..... it had changed something in my eye, because I was near-sighted to begin with, or partially near-sighted. So, after I had been at Tulane for some time, as a matter of fact, I think I was in medical school, I decided I had better check with the ophthalmologist and he found that they had , whether it was, whether it was just....before or not, he couldn't be sure. There were some changes that required correction of my glasses. So I started wearing glasses for the first time. I've been wearing them every since. I didn't really, after that , I was sort of less interested in playing baseball. But I did all of that, you know, while I was in college, so, you see, if you want to put in the necessary time, you can. See, I played in the band and I played in the orchestra, which were two separate groups.

SCHANKE: It's rather essential that you don't sleep a great deal, though, isn't it?

DR. DeBAKEY: Well, that's right. But you can do more that way, in life.

SCHANCHE: When did you actually.....

DR. DeBAKEY: You see, fortunately, all through my schooling, in grammar, high school and college, learning was not a difficult thing for me. I learned rapidly and so I didn't have to spend a great deal of time on my lessons. I would find plenty of time to do other kind of reading. I used to take two and three books from the library just to read something else. Because I had plenty of time. In spite of that, I made good grades, I was always, you know, at the top of the class.

SCHANCHE: Was there ever a point in your life, Mike, when you made a specific decision to use your time to the fullest, because you use your time more fully than almost anyone I have ever known, and I gather from what you have said, that you always have. Did you decide to do that at some point?

DR. DeBAKEY: No. I don't think it was a conscious thing. It was mostly the fact that I wanted to do all of these things. I wanted to do so many things that it took up all the time.

DR. DeBAKEY: I had a great sense of curiosity, and was driven really by the curiosity. Even from the earliest time of my memory, I was curious. That's really, for example, I can still recall sitting there by my mother's side while she was sewing. I was curious about what she was doing and I wanted to learn how to do it. And she saw that and she taught me. Once I learned how to crochet, I wanted to learn how to tatt, then I wanted to learn how to use the sewing machine, and she taught me all of that. She spent....she saw I was interested.

SCHANKE: Do you suppose the fact that you could sew rather well had an influence over your choice of surgery?

DR. DeBAKEY: I don't know, Inot consciously. I don't think consciously. Surgery fascinated me from the very start because it was a mechanical thing about it and I've always been fascinated with mechanical things, something you use your hands with. Secondly, I was fascinated with anatomy. Iwhen I dissected the tissues, you know, it just fascinated me.....like drawing. Then by

DR. DeBAKEY: the time I got to be a junior medical student, I came in contact with Dr. Ochsner for the first time. He had a great influence....

SCHANKE: Was he actually teaching and lecturing classes of medical students at that time?

DR. DeBAKEY: Oh, yeah. He was vigorous and enthusiastic.

SCHANKE: You had him first for what? For surgery?

DR. DeBAKEY: Uh huh. Yes, you see by that time I was living in the hospital and I was doing various things in the hospital. Some.....three months. I assisted at operations, gave anesthetics, worked in the emergency room, and at night worked in the pharmacy. So I had, you know, already an exposure to the actual surgery and that fascinated me. I was already becoming critical of some of the surgery I saw. I felt I could do it better. It's a terrible thing..... for a youngster.

SCHANKE: Yeah, and it's typical of medical students.

DR. DeBAKEY: I've seen some of the skin and I thought, gee whiz, I know I can do better than that.

SCHANCHE: Do you remember a particular example, I think it is a good idea, whenever we come to something, in medicine, where you saw something that you knew could be better or you knew could be changed, or knew could be improved,.....

DR. DeBAKEY: Oh, yes. Time and again I'd run to the lab.

SCHANCHE: Well, like when was the first time, while you were a med student that you saw something and said, gee whiz I can improve that?

DR. DeBAKEY: Well, of course, this was things like I would see them sewing the skin, you see, and I knew I could sew that better, I knew I could do a better stitch on it. I could bring those tissues, edges better together. Because I had already done that in cat anatomy. And I knew I could do a neat job. And I saw them doing it and it wasn't very neat. Well, it just didn't look neat. Then giving blood transfusions, for example, at that time, we....they did it in a very awkward way. There wasn't blood, stored blood, then. They had to do it direct from an individual. They had to take it out with

DR. DeBAKEY: a syringe and then inject it and I said well there must be better way to do it than that. That just is terrible---blood all over the place. So I went to work on a blood transfusion machine. Now, I developed the sleeve valve, and it's very interesting having had the experience with motors, you know, working on taking a motor apart and working on it, one of the old principles that was used was the sleeve valve.

SCHANKE: What was the sleeve valve used for in motors?

DR. DeBAKEY: Well, you see, a sleeve valve is a valve in which the plunger is used to change the direction of flow. Now, if you...if the plunger is coming up this way, and you've got an opening down here, it will suck in. Then , when the plunger goes back down, and closes off that opening, it will force the stuff out to a different opening. So....

SCHANKE: That is the valves andof an automobile?

DR. DeBAKEY: Yeah, its called the sleeve valve. I was familiar with that and I turned to that idea to develop a syringe that

DR. DeBAKEY: was really a sleeve valve.

SCHANCHE: I read your paper on it. Were you a student when you did that?

DR. DeBAKEY: I was a student when I firstyeah, developed it.
I was a senior medical student when I first developed it.
Then as an intern I got to experience with it and published a paper.

SCHANCHE: How long was that actually used before your rolling pump...

DR. DeBAKEY: Well, the roll pump I developed really in the research laboratories. First as a roller pump for the concept of trying to emulate the pulse and the circulation and I was interested then in pumping. Then I immediately, as soon as I had perfected it as a pump, I immediately began to use it for blood transfusions.

SCHANCHE: You didn't start out with the idea of using it as a valve.

DR. DeBAKEY: No. Because I thought I had a....

SCHANCHE: Thought you had already solved that....

DR. DeBAKEY: Solved that problem. Exactly.

SCHANCHE: Well, then it was just kind of an abstract notion when you began the roller pump, then?

DR. DeBAKEY: Yeah.

SCHANKE: It didn't have a specific.....

DR. DeBAKEY: No, I didn't have a specific purpose for it. Not to begin with, but as I perfected it, and I was so excited about being...about the perfection of it, because, you see, it just suddenly---as I was working with it--- when I learned that it would....it suddenly dawned on me, well, if I could fix it so it wouldn't crease at every point, then it suddenly dawned on me, well, I'll just put a ridge on it, and clamp that ridge down. And that worked. Exciting for me.

SCHANKE: In working on these two things, both of which were significant developments, one very significant.

DR. DeBAKEY: Well, the significance of it really came later. I didn't appreciate the full significance of it then, because I was not directing it towards an artificial heart-lung machine. I learned only later, when I went to a meeting, about what Dr. Gibbon was doing. Well, then I got interested in the whole concept and actually began to work on it. But Dr. Gibbon had been working on this

DR. DeBAKEY:had been working on the lung concept rather than the pump and he hadn't really evolved the pump.. So I discussed this with him at the meeting, and I said you know 'Why don't you try my pump, I'll send you a model of it' Which I did, and of course he immediately found that this was what he needed. It solved his problems. He says so in one of his articles, he describes this experience.

SCHANKE: When you began work on these things, did you have a mechanical department in the medical school?

DR. DeBAKEY: No. No.

SCHANKE: Or in the hospital.... How did you do it?

DR. DeBAKEY: Well, we had , of course , there were the carpentry and mechanical shop to repair things in the building of the medical school. And then when I had to cast something well then he would tell me where to go and where to go in town, Ithere was an iron casting works and so on. I'd go over there and get them to make me a mold.

SCHANKE: You would what, cast these in clay. Models.

DR. DeBAKEY: Yes, well, they would make the model in wood or clay

DR. DeBAKEY: first and then they'd make it in sand and pour it. Then they'd.....there were several machine shops that I got to know when I'd go downtown. Leanned to know these people and they became very nice and it was a little bit of a diversion for them. I'd pay them all something. I pay them.

SCHANKE: How much money did it cost you to develop the DeBakey rolling pump?

DR. DeBAKEY: It cost me, out of my own money, I think something on the order of about , all told, about , oh, I imagine I put out maybe \$500, \$600.

SCHANKE: You didn't have the money to spare, did you?

DR. DeBAKEY: No, well, you see, I didn't have any grants, there weren't any grants.

SCHANKE: Your father had given you a certain amount of money to go to school on.

DR. DeBAKEY: That's right. And I had to get it out of my own pocket. There wasn't anybody to go to to get any money. There wasn't any research grants, there weren't any special funds and besides who was going to support somebody like that.

DR. DeBAKEY: Somebody who didn't have any experience in research.
So, I had to spend my own money, and build these things myself.

SCHANCHE: Was your sleeve pump widely used after you devised it?

DR. DeBAKEY: Yeah, for a while. It became...it became used for a number of other things. For example, in the aspiration of fluid out of a chest, you didn't have to, it was used as a means of shifting the direction of flow. V. Mueller & Company took it over and made it and sold it.

SCHANCHE: Did you lice....did you patent these things?

DR. DeBAKEY: No.

SCHANCHE: You didn't?

DR. DeBAKEY: They are registered, but I didn't patent them. No, there wasn't any need to patent them, and I was really not interested in making any money out of them. I never did.

SCHANCHE: You, in fact, didn't make any money on them.

DR. DeBAKEY: No, I wasn't interested in that.

SCHANKE: Did other things challenge you in a similar way when you were going through med school? Looking at things and saying, this really shouldn't be, I can change it.

DR. DeBAKEY: Yes, well, of course, as time went on, I became challenged with the conditions I was facing and the patients I saw and the problems, particularly the circulatory problems, they were the most fascinating for me. That's why I started my research work in the circulatory area. Then when I, still as a medical student, I must also say that Dr. Rudolph Matas had a great influence on me, because.....

SCHANKE: Matas?

DR. DeBAKEY: No. M A T A S. He was of course retired at that time and as a matter of fact I had taken his place as head of the department of surgery, but he had a great library in his home, a foreign library. And I was very, in those days, I was very interested and still my curiosity was great, and I would....I wanted to learn more about what had transpired in the past

DR. DeBAKEY: and do research in the literature. Our library was limited in this regard and those early days, you couldn't go to the library, you know, it was so very far away, and it took you a long time, it took you days and weeks to get anything from them.

He had a very, very good foreign library. They were his personal volumes. He consequently gave them all to Tulane. So, the librarian knew this and would call his librarian in his home, his housekeeper, and ask if they could borrow some of his books. Well, he found out about this and so, he said to the librarian one day, he said, "Who is this young man who keeps borrowing my books?" He, in all of his experience, he hadn't had this experience. I was getting twenty and thirty of his books every week and he wanted to know who this fella was. It was very unusual, very unusual. So she told him and.....

SCHANKE: He was then what, in his seventies?

DR. DeBAKEY: Yeah, I guess so.

DR. DeBAKEY: So he said I would like to meet this young man.
So, the next time she told me, she said, "Dr. Matas wants to meet you and the next time you go up there and get some books, I'll tell him you're coming up and see if it's convenient for him to see you then."
I said, "That's wonderful." I was eager to meet him.
So I went up and he was very, he brought me in, and I'll never forget this experience. He took me into his library....into his own office in the house. He had a big two story house, three story house on St. Charles Avenue, and ...

SCHANKE: In New Orleans?

DR. DeBAKEY: Yeah, New Orleans. And he took me into the office and his house had virtually been converted into a library. He had some living quarters for himself and a study, he had a little small living room, most of which was stacked with books all around and the house had been converted into the library. And they had to prop up the foundation of the house two or three times because of the weight of the library.

SCHANKE: Literally?

DR. DeBAKEY: Yeah. So, he took me into the little place where he had his own study, I think which had formerly been the dining room. And sat down, he had a little goatee, a twinkle in his eye, very charming.

SCHANKE: Was he a short....?

DR. DeBAKEY: Yeah, relatively short. Rather stocky. And he said I have some very fine sherry, how would you like to have a little small glass of sherry. And I said I would like that, that would be delightful. So we sat down and he wanted to know a lot about me, my background, who my father and mother were , where we lived.

SCHANKE: Was he a Southerner or had he come to New Orleans?

DR. DeBAKEY: Well, you see, no, no, he was born in Texas but he didn't live there very long, because his parents then moved to , his father was an ophthalmologist, and he comes from a fairly prominent family around Barcelona and some of his family still lives in Barcelona and his father moved back to Spain and then he grew up partly in Spain and then his father moved back to Louisiana,

DR. DeBAKEY: to New Orleans, I've forgotten the basis, the basic reason for this, but it's been documented. And then went to Tulane and got his medical school training there and then I think he went back to Europe and had some more training, he spoke French and Spanish, of course, fluently, some German and was very, very scholarly. He was a great writer. His style of writing was lovely. And , of course, like many of those old fellows who were trained inhe was trained in the....he was scholarly and highly educated and cultured, great friend of Locardio Hearn. Became very close friends with Locardio. Then, anyway, I got right in the end, he took great interest in me , he wanted to know all about my background and everything else. He became a very, very good friend of mine and he took a great interest in me after that. He wanted me to write his memoirs and...asked me if I would do it.

SCHANKE: Did you feel a sense of intimidation as you...as a

SCHANKE: youngster in the presence of this great....

DR. DeBAKEY: Oh, yes, I was awed. I was just on pins and needles, I was just awed by him. But as things gradually developed from then on, why and I became closer to him, I took a very great interest in him and I was no longer awed by him though I had tremendous respect and admiration for him. He had a way of....he had a tremendous charm, and I was.....

SCHANKE: How did he express this?

DR. DeBAKEY: Oh, he expressed it just the way he spoke, the cultivation of his voice, the kindness with which he showed in interest in me.

SCHANKE: Was his English accent.....

DR. DeBAKEY: Not very...no, his accent was not too bad, it was a Louisiana....

SCHANKE: Louisiana, not Spanish?

DR. DeBAKEY: But, I must say that he did influence me. Of course, no question about it, because he was the one that made arrangements for me to go to Leriche, and he encouraged me to go to France and study for

DR. DeBAKEY: awhile in France and Germany. And he selected the places. He knew them all well and Dr. Ochsner wanted me to study in Germany too, because he had studied in Germany himself for two years.

SCHANKE: Did you go first to Germany or first to....

DR. DeBAKEY: No, I went first to Strasbourg. Then I went to Germany after that. Had a great experience there. I became , you know, it's interesting, and I think there's no question about the fact that it did influence me. These people that I became , that I came under, came under their influence, somehow and for some reason, which I can't explain, they took a very kindly, almost fatherly interest in me, and they treated me that way. You know, they couldn't have treated their own son better than they treated me. Of, course, I respond to this very, in a very good way, because this stimulated me, this made me want to do more and better , so I worked harder.

SCHANKE: Why do you suppose that they did that? Because of your expressed interest in their field?

DR. DeBAKEY: I really---it's hard for me to say.

DR. DeBAKEY: I really.....

SCHANKE: A fortuitous melding of personalities ?

DR. DeBAKEY: I think so. I think so, more or less. Because when I first met Dr. Matas he didn't really know that at that time I was interested inbecause I was writing on a number of other subjects when I was getting articles and journals on a number of other types of subjects, like peptic ulcer and....

SCHANKE: Were you a student then, or a intern? Or a resident?

DR. DeBAKEY: First met him as a student, as a senior medical student, but I still.....even then, you know, I was reading literature and writing my thesis for ...on physiology of....smoking. So, I hadI came under his influence as a senior medical student, but I kept that experience, I mean I kept that relationship and it became a stronger bond between us.

SCHANKE: Did you see him almost on a weekly basis after that?

DR. DeBAKEY; Yes, almost weekly, that's right, and as a matter of fact, every once in a while he would call me and say "I've got something here...very interesting, something

DR. DeBAKEY: that just came in and you might like to see it."

A book, a journal and so on. So I would go up there, and then later of course when we got married, when I got married, he took a very good interest in my wife and we used to go there sometimes for dinner and every Mardi Gras he would invite us to his home to watch the parade. Which was a great honor, to be invited to stay in his home to watch the parade because the King of Mardi Gras always stopped in front of his house and drank a toast with him.

SCHANKE: Do you think if you had not met Dr. Matas, your career would have been the same, or did you think he sort of strongly influenced you into circulatory...

DR. DeBAKEY: Yeah, no question about it, he did. Especially into the surgery of cardiovascularbecause he was one of the great pioneers in the surgery of cardiovascular disease and you know you can't help but be influenced by the respect you have for someone. The admiration you have for someone and in a sense you almost want to emulate that, subconsciously I'm sure this had a

DR. DeBAKEY: profound effect on you.

SCHANCHE: Would he sit and talk to you in a philosophical vain about medicine and about....

DR. DeBAKEY: Well, he had a tendency to reminisce about various experiences that he'd had . He reminisced one time about the early days when he was seeking in a sense the head of the department and it became a kind of a public issue, there were even editorials in the paper because so many of the people were against him. He used to tell me.....

SCHANCHE: Why were they against him?

DR. DeBAKEY: Jealous.

SCHANCHE: Because he was a foreigner?

DR. DeBAKEY: Well, more than than, they were jealous of his ability. And what he had accomplished so young, he was only thirty some-odd , thirty-three or thirty-four years of age, and he had already shown them up, shown everybody up, by his great ability and they were very jealous of him and they were....they regarded him in a sense

DR. DeBAKEY: as a foreigner because he didn't belong to the old Louisiana, old Louisiana aristocracy. Even though he came from a very fine family. Perhaps more aristocratic family than any other....

SCHANCHE: They weren't a New Orleans family....

DR. DeBAKEY But he wasn't a New Orleans family. He used to reminisce about things like that and philosophize about that in the sense that one continue to work and not allow these to divert you in your work, these kind of distractions and so on. And he would reminisce about some of his experiences in surgery, some of the people he knew in surgery and so on. He was fascinating, absolutely fascinating conversationalist. He had a way of describing his experiences in almost story form.

SCHANCHE: He was a raconteur of this....

DR. DeBAKEY: Oh, yeah, he was tremendous. He had a tremendous ability in this regard.

SCHANCHE: Well, so you were influenced by two very great men, the other one was Dr. Ochsner. Describe him at that time, as he first impressed you when you first.....

DR. DeBAKEY: Well, Dr. Ochsner was a very vigorous, very enthusiastic type of person who had tremendous industry and attitude. He was enthusiastic about everything. I mean, you know, this....

SCHANKE: He was not very old then, was he?

DR. DeBAKEY: Oh, no, you see, he was in his early thirties. Let's see, I think he was thirty-two when he was made Professor of Surgery there. It was...he was about thirty-six or thirty-seven when I got to know him. He also sort of immediately took an interest in me. When I became an intern, and was on his service, he personally took an interest in my going into surgery, and he told me that he would like to offer me a job in surgery. But Professor of Medicine had also offered me a job in medicine, and I had great respect for him. But I selected surgery, I think, not only just because of Dr. Ochsner, but really because surgery appealed to me a little more.

SCHANKE: You had already been drawn to it.

DR. DeBAKEY: That's right. Yeah.

SCHANCHE: The mechanicalthe drawings, the...

DR. DeBAKEY: That's right, exactly. So, I ...that's how I really got into surgery. Well, once I got in, and got close to Dr. Ochsner, it wasn't long before I became his first assistant and then I became a kind of a man-of-all works with him, I mean, he'd give me things to do.

SCHANCHE: You grew up to be his collaborator rather than his assistant.

DR. DeBAKEY: That's right, because he gave me things to do, he assigned responsibility. And I would do it, he assigned them, you know, I liked to write, I liked to do research work and he'd give me, he'd assign me some of the research work andin the laboratory. I ultimately became head of the research laboratories, you see, I ran it. I'd sometimes do as many as thirty dog operations in a day, and that's really how I developed the concept of organizing my surgical work so that I could do things, you know, I'd have four operating tables.

SCHANCHE: So you could go step by step.

DR. DeBAKEY: Yeah , and I had a Negro fellow who gave me anesthetic and assisted me and that's all. Later I got one of the other boys to come in and assist me. And I'd do these things in stages and I would get four more dogs in and... I was just organizing it so that I could do more surgery.

And I learned to doto use my technique in a more effective way. I became technically quite adept,, I was doing the basic things in surgery, cutting and tying and so on. Then later Dr. Ochsner and....I came back and Dr. Ochsner took me into the department as full-time and continued to have an influence upon.

SCHANKE: What were the years here, when you started your internship---that was at Charity Hospital, right?

DR. DeBAKEY: Yeah, that was '32. 1932.

SCHANKE: So you were there one year as an intern?

DR. DeBAKEY: Yeah, '32, '33.

SCHANKE: And you became a resident under Dr. Ochsner.

DR. DeBAKEY: Yea, '32'33. Then '34, '35, '36 I got my masters degree, I think it was in '35. Then I went to Europe and was there for a year and a half maybe two years and came

DR. DeBAKEY: back and shortly after I got back, I got married, my wife and I and moved into a little small apartment over on St. Charles Avenue and Dr. Ochsner used to come by pick me up on his way to the school, the hospital and he picked me up around sometimes 5:30 , quarter to six in the morning. We'd go down and there were certain things we'd do before we started with surgery.

SCHANKE: Was the apartment near Dr. Matas' house?

DR. DeBAKEY: Yeah, my apartment was not very far from Dr. Matas' house. Dr. Ochsner lived farther down , nearer the campus of Tulane. On Saturday and Sunday we worked , every Saturday and Sunday we worked down at the office , and we made our own slides, and photographed our own things. Did our own photography and so on. We didn't

SCHANKE: Did you go to Europe on a Fellowship or did you have to pay for that?

DR. DeBAKEY: No, my father paid for it. There was no....

SCHANKE: Did this whole course influence your thoughts about government support of medical education and easing the strain on....

DR. DeBAKEY: Not at that time, it didn't affect me. I wasn't thinking in those terms at that time. My awakening to , went, let's see, government role, really came during World War II. And it was during World War II that I became aware of what the government's role was and then you see, it was not until after World War II that the government's role began to assume importance because it was not until during World War II, perhaps to some extent immediately preceding World War II, the government put any money to amount to anything in science. The thing that exploded was the explosion of the atomic bomb. That's really what I think opened up the whole field of science by government support and government supported education didn't really develop until World War II because it was during World War II that the support in medical education took place with the soldiers.

SCHANKE: Through the ASTP program .

DR. DeBAKEY: That's right, exactly. So government's role in medicine was almost non-existent until World War II and after the war, then it grew very rapidly.

SCHANKE: When you began with Dr. Ochsner, had he already begun his sort of pioneering in carcinoma of the lungs?

DR. DeBAKEY: Yes. That's right and well, it occurred while I was with him. He....we did this together, Dr. Ochsner. I helped him do the first case, operated on the first case of carcinoma and of course, the first successful had already been done in Washington by Professor Graham. Of, course, the fact that it was successful this opened the way. That wasn't the first case that had ever been operated on, but the first successful case. Well, that, so that was a successful one....

SCHANKE: This was the removal of the entire lung.

DR. DeBAKEY: Yeah, that's right. So, that opened the whole field. Dr. Ochsner began operating on some patients, too, and I assisted on the first one and we had successful cases. Of course, that occurred ...that encouraged us to go on. And then we became interested in the fact that it was an

DR. DeBAKEY: increasing incidence, carcinoma of the lung. I reviewed literature on it . I'll never forget there was a kind of a classic little monograph written in 1912 that pointed out the change that had suddenly taken place in cancer of the lung. Well, a lot of people thought that this was because it was just being diagnosed.

SCHANKE: That it hadn't been.....

DR. DeBAKEY: Yeah. But later on there was increasing evidence even after. Now the interesting thing is that it seems to have kind of reached a peak now, if anything if was decreasing rather than increasing. Yeah, very interesting. See, this is what happened to cancer this summer. There have been other diseases that have had this kind of change take place in.....but not always easily explained either. Because we don't know anything about some of them. Then the reason that we got interested in fact that smoking may be accounting for it was because Dr. Ochsner had a thing about smoking. He --- because I didn't , you know, I had grown up in a family

DR. DeBAKEY: that didn't smoke, my father and mother didn't smoke.
Nobody smoked in the house and it never occurred to
me to smoke, and you know, smoking was never a
....something that bothered me, one way or the other.

SCHANCHE: Yeah, you were just indifferent to it.

DR. DeBAKEY: I was indifferent to it, it made no difference to me.
And then too, I would....when I was in college, I'd
go to what they call "Smokers" then and ...I don't
know what they call them today.

END OF SIDE A, TAPE # 3.

Side B

DR. DeBAKEY:gained the post. And he was his secretary.
So, I spent several days there with them, giving
some lectures and then went to see the Pope, they
took me to see the Pope. Had about an hour's session
with the Pope about this matter.

SCHANKE: The present Pope?

DR. DeBAKEY: Yeah. I told him that I thought, that it was feasible,
but it required some radical changes. He might not
be prepared to make some radical changes, this
involved the personnel and so forth.

SCHANKE: In their medical school and....

DR. DeBAKEY: Yeah. Well, they were very interested in ...and they
had me come and see them again. I went back a
second time and then apparently the Pope decided the
situation was a little too unsettled, and so they held
off on it and I haven't , they kind of tabled it, and I
haven't heard anything more from them, until this
fella called. And he called me because in discussing

DR. DeBAKEY: this possible project with these people, they told him about my visit. He said well, that's great and I would like to consult Dr. DeBakey, too. So, he's going over there next Wednesday I guess, and apparently has got some American company they are working with over there looking at the situation. They have a possibility of getting a grant and some money from a group of Americans. And he, I'm sure he wants to keep me on as a consultant, and perhaps come down and visit with me and so on, once they have determined the feasibility of it. So, it's an interesting project, something badly needed in Eurpoe....

SCHANCHE: You have a large number of Italian patients, don't you?

DR. DeBAKEY: Oh, yeah, yes. If something could be done, but not through the establishment.

SCHANCHE: I don'tit seemed like there was an American hospital in Rome....

DR. DeBAKEY: No, there's, I think, an American-British hospital of some kind. It's just not much of a hospital.

DR. DeBAKEY: You know, it's interesting...I came up here to New York, Mary Lasker got me to come up here two or three years ago because she had gotten--- she's one the Board of Trustees of New York University -----and a fellow by the name of Charles Wrightsman, he's the oil man, she got him interested in the possibility of setting up a cardiovascular research and training center like we at NYU. Well, that fizzled out, largely because the established structure of the university and the hospital....

SCHANKE: The faculty wouldn't accept it. I remember I talked to Jim Hester about that or I had heard that story. The faculty wouldn't accept it. Wrightsman was ready to put up the money.

DR. DeBAKEY: Well, what happened essentially, briefly, was that Jim Hester and Charles Wrightsman and Mary Lasker had a luncheon, in fact Charles Wrightsman had the luncheon in his apartment here in New York, and invited me in to talk to them and I did and told them, yes it could be done and well, they said what is required, financially to start it. And I said oh, I would say, if you started

DR. DeBAKEY: off with \$10 million and are prepared to ultimately put about \$20 million, because I think you could get the rest, matching, you could have a first class center. Wrightsman said, he turned around to Hester and said I'm prepared to put the first million down right now, and Hester got all excited and said let's go out there and see Armstrong, who was then the director. So we went out to see Armstrong and he manifested some interest, not very enthusiastic I would say, but some, said he would like to consult with some members of the faculty and that sort of thing. From that point on, it deteriorated. Wrightsman pulled out, he's still kind of bitter about it. But, see now, it's a pad there to do that, and it's a trap to that structure.

SCHANKE: Presently, there is aof cardiovascular ability and knowledge around New York, it's just not concentrated in one place.

DR. DeBAKEY: That's right, exactly. It's fragmented, little pieces here and there and as a consequence nobody's got a first class

DR. DeBAKEY: center here.

SCHANKE: Back to Dr. Ochsner, his influence on you, you were telling me about your first involvement with pulmonary carcinoma.

DR. DeBAKEY: Well, he....

SCHANKE: Which I gathered from what you say, you as his student had about as much to do with it as he did as a professor.

DR. DeBAKEY: Yes, because he....there'd been some research work a whole lot of literature, on smoking and of course, I had written, my early interest as a student in smoking came through a thesis I had written on the physiology of smoking, on the physiological response. But Dr. Ochsner he thought smoking was a big factor in peptic ulcer, for example. And in certain forms of peripheral vascular disease, particular Berger's disease, and he had a kind of a thing about it, he was a little, I would say, more than just prejudiced against smoking. He thought it was very harmful and very bad for you, and I didn't react that way to it, like he did. But, I became interested in the scientific aspects of it, and did some research

DR. DeBAKEY: work on it and found that there had been some research work in animals indicating that it might produce cancer of the lungs. So, I then took the clinical aspects of it and did statistical analysis of this and I remember we prepared an article in which we pointed, showed that production of tobacco and the figures I think we got from the Department of Agriculture or Commerce or whatever, over a span of ten or fifteen years, and you could see that the consumption of tobacco paralleled the increase and the incidence of cancer of the lung, so we tried to draw correlation of that. Dr. Ochsner presented that at a meeting and Dr. Evarts Graham got up to discuss this and said that he was certain that we had also gotten the data on consumption of nylon stockings that we would have found the pearl of center.

SCHANKE: This was in about 1936?

DR. DeBAKEY: Yeah, about '36, maybe a little later, '37, '38. Well, there was a lot of pooh-poohing in all of this for a long time.

SCHANCHE: So, everyone considered Ochsner a nut on this subject.

DR. DeBAKEY: Yeah, that's right.

SCHANCHE: A kook, on smoking.

DR. DeBAKEY: Exactly. And it took a long time to convince a lot of people, including Dr. Evarts Graham, who subsequently became completely convinced and became a great advocate of this. So, many of these people today who are great advocates of this, are johnny-come-lately in the field, they have completely forgotten that at one point, you know, they ...

SCHANCHE: After your first paper in which I think you reported on nine operations that Ochsner and you did, I've forgotten the number, either nine or twelve, the first cases, you wrote several papers subsequently in the same vain reporting on more cases and then at some point you sort of backed away from this.....

DR. DeBAKEY: Well, yeah, you see, what happened was that we , as we got a lot more cases, we found that the incidence

DR. DeBAKEY: of smoking among the patients was not a great deal different from the incidence at that time of smoking among a group of people who had other kinds of conditions not cancer of the lungs. So we were less convinced of it, though Dr. Ochsner never did change his mind about it. But we had to publish the data we had, so we published it. But, Dr. Ochsner continued to speak against it and he.....

SCHANKE: You sort of drew back as an objective scientist, but he continued to be an advocate.

DR. DeBAKEY: Yes, that's right. Well, I didn't ...I drew back only in the sense that I didn't have the data, you know, I would say, well, here's the data and I can't change that. There's no question in mind that smoking is harmful to you in some respect, though I can't prove that it causes cancer of the lung, that's all. But Dr. Ochsner was still convinced and continued to speak out on this. Then too, as time went on, I became less and less interested in those kind of

DR. DeBAKEY: conditions and more interested in cardiovascular problems and devoting all my time to that. So, I didn't become identified in the late years with those things.

SCHANKE: You started out with a strong---as a thoracic surgeon with a strong interest in cardiovascular....

DR. DeBAKEY: That's right, yeah. My training in thoracic surgery at that time, my early training, there wasn't a great deal of vascular surgery to do on the chest, on the heart. We did things like patent ductors and coarctation and a few things like that, but the open heart surgery didn't come into being until about '53. My interest was largely in the vascular aspect of it, until the open heart became available, so I was interested in the aneurysms of the aorta and things of that sort and pioneered in developing techniques to treat those. That opened a way to vascular surgery in the chest. Then in '53 when open heart surgery became feasible, we immediately shifted into that.

DR. DeBAKEY: And started that also for vascular surgery, for example, certain forms of aneurysms of the ascending aorta you couldn't really do without having open heart surgery.

SCHANKE: Well, you were held back initially I suppose by rather crude anesthesiology and a variety of things.

DR. DeBAKEY: Well, there were a variety of things, anesthesiology was one, we...infections was another. You had to be able to control that, the antibodies came along and that made that possible. It was only in '53 that we were able to apply it ...open heart surgery. John Gibbon did the first open heart ...first successful open heart surgery, with a heart-lung machine at that point. Now, let me say that we did do some open heart surgery before '53, but we did them with hypothermia and it was very risky and yet only a very short time.

SCHANKE: I don't understand...

DR. DeBAKEY: Well, we did this with hypo-thermia in which we made the temperature of the body go way down, cooled the patient down, put him in a bath...in an ice tub.

DR. DeBAKEY: After they were anesthetized and then hope we could get them back. It was very crude, and very risky.

SCHANKE: How long a time did you have, a matter of ten minutes or so?

DR. DeBAKEY: Yeah, ten or fifteen minutes. But you could do some things successfully, and we did. We used it also for some aneurysms in the aorta, but it was very crude and very risky and really the heart-lung machine has made a tremendous difference. That really opened the way. But, see, I did my first aneurysm in the chest in '49, and that really opened the way to dealing with aneurysms in the chest.

SCHANKE: What did you use

DR. DeBAKEY: Well, this particular case was an aneurysm of the ascending aorta which was s an origin with a small neck, a huge aneurysm but a small neck, and I opened the chest and clamped that neck off without cutting the circulation off. Then when it came to resecting a segment of the aorta, we had to occlude circulation and what we did was to do a temporary

DR. DeBAKEY: bypass, and then remove that bypass after we had repaired it. That was an all-day job. Of course, it was highly risky because also the anesthesia was risky then, the anesthesists was...had to learn how to deal with this.....but that opened the whole field.

SCHANKE: You did not have then theany trained anesthesiologists?

DR. DeBAKEY: No, oh, no, as a matter of fact, we had to in a sense train them ourselves and they had to learn and train themselves with us, so anesthesia was perhaps the biggest factor, and in fact still is, the biggest risk factor. The people in anesthesia that we had at that time were not the most expertthe most, let's say, capable people. Most of the people in anesthesia...

SCHANKE: Sort of rate next to dermatology.

DR. DeBAKEY: Yeah, they were not very capable people and I would say they were not the most research oriented and they were, what we would call people that came from the lower third of the class.

SCHANKE: They were your anchor men.

DR. DeBAKEY: They always have been and they still are. They're better than they used to be, but they are far from the most capable and

SCHANKE: It does attract the most.....

DR. DeBAKEY: I don't know why, but they don't....

SCHANKE: While we're still on that subject, what do you think of acupuncture? From what you've learned about it?

DR. DeBAKEY: Well, I don't know, really, I find it interesting and it has created so much excitement and interest because you know it is a very old method and there is no scientific basis for it at all, so that I just, as a whole, I can't believe some of the things that they say it can do, they have no scientific basis, and the fact that they may be able to do some of those things, I don't doubt, because I think you can do a lot of things with mesmerism.

SCHANKE: What did Paul Dudley White think when he went to Washington, do you think he saw....

DR. DeBAKEY: Well, I'm not sure.....but I saw a pneumectomy

DR. DeBAKEY: being done in Russia and they used a local anesthesia with the patient talking throughout the....you know, this is possible. You can do it under spinal anesthesia too, and it has been done. That doesn't mean that's the best way to do it. As far as acupuncture....

SCHANKE: You remain somewhat skeptical about the whole thing.

DR. DeBAKEY: That's right. Well, I just don't believe that it's any great advance, let me put it that way. And I don't believe you can cure a cold by putting a needle in a toe, that just doesn't make sense. Secondly, when you look at the charts that they, that I have seen, anyway, they don't make any sense to me, because they don't conform with the anatomical structure of the nervous system. I mean, and I'm notI never have seen rivers of that kind in the body. I think it's a lot of nonsense that makes good copy.

SCHANKE: Back to a human element in Drs. Ochsner and Matas, both of these men talked to you a great deal when you were very young, and had a profound influence on you. What sorts of things did they say to you?

DR. DeBAKEY: Well, they didn't, they weren't talking to me that way. Whenever they talked to me, it was usually about some particular professional level and secondly they might reminisce and talk about their experiences with other people, particularly if it related to some problem that we had. But, you know, you can't be with people over and over without getting some, let's say feeling about them as individuals. First, about their integrity, their basic integrity and talking about their larger point of view. Secondly, about their dedication and their compassion and concern. And with Dr. Ochsner, you see, I was with him enough daily and seeing him handle patients to get a sense of his dedication to patient's problems, and he was optimistic about their problems and transferred that optimism to the patient. He was able to evolve a kind of rapport that gave the patient a great sense of comfort and confidence. He always was very kindly in his whole approach to a patient and it didn't matter to him whether he was on the charity

DR. DeBAKEY: wards in dealing with a patient or as a private or infirmary in dealing with patients, he was the same person. He had a dogged kind of attitude towards the management of the clinical problem. He never gave up. And I used to marvel, I see him with patients who had cancer all over their body and he was still trying to get them well....

And it was obviously hopeless. That always impressed a great deal, this continued, constantly continued, up to the breath of the individual, he tried to get them well.

He never gave up. And sometimes you'd see miracles, virtually. Because there are kinds of miracles that occur, that you can't explain. He was marvelous as a physician, I mean, you wanted him to be your physician.

And he was so honest about everything including his own way of life. He is a very unselfish person. He was never concerned about making money for himself, and he didn't, he's a very simple man. Never wanted many of the material things of life or luxuries. And I get a deal from him, you know, he was the one.....

SCHANCHE: You took at least some of your ideals in medicine from him, from Dr. Ochsner.

DR. DeBAKEY: Oh, yes, definitely, no question about it. And there were a lot of little things that I just took over from him. For example, he never charged ministers, he never charged school teachers. And I used to ask him about this and, you know, I asked him why, they could afford to pay and and he said well, these people who work in the same area you're working in medicine, they're working for humanity. They are so badly underpaid, they make so little money. I like to feel that I'm extending a kind of professional courtesy that I would extend to a doctor who is a patient, or a member of a doctor's family. I thought this was wonderful, you know, it appealed to me as such a wonderfully compassionate thing to do. So I did it. I adopted the same practice. I learned it from him.

SCHANCHE: Can you describe the....his, you said his, your introduction to how he dealt with patients in such

SCHANKE: a compassionate way or an honest way.....

DR. DeBAKEY: Yeah, well, he...

SCHANKE: Can you put him on scene or describe a particular day and a particular patient.?

DR. DeBAKEY: Well, I remember very well a patient who had cancer of the colon, a woman, and it was pretty extensive. It was obvious from the clinical examination that it had already been quite extensive and she kind of, she knew she had cancer, of course, she was very depressed. And Dr. Ochsner told her that, yes, he was certain she had cancer, she needed to be operated on, but he said, you know, we can cure this form of cancer, and have, in very many patients, and he went on to tell her about a case he had so and so had gone five years and ten years. He said, I'm convinced that we can cure you. She had been told that it was hopeless, and she said well, Dr. Ochsner I've already been told that it's hopeless, and he said well, nothing is hopeless, there's always hope. That's why we're here now.

DR. DeBAKEY: You know, there wasn't any talking like this.

Pretty soon this woman came out of her depression, and she became eager to end this operation and be cured of cancer. We operated on this lady and she had metastasis all over. Well, he removed the lesions and then he started using magnesium sulfate. This was a remedy that had been proposed by somebody in Europe when he was there, and he had seen some remissions occur. So he started giving her injections of magnesium. Well, she did better for a while then she got worse and she went back in the hospital and she had it all over her body and yet he was still---you know, when he'd come into the room, he was smiling and he was interested, did you get better today, and , you know,I used to come out with him and I didn't question, but I had in my own mind, I began to think, how can you still feelit was depressing to me. But, he wasn't depressed, he never got depressed. He was never depressed. And even after the patient died, he

DR. DeBAKEY: would go and talk with the family and in a very kindly, passionate , and you could tell how sorry he was and he just couldn't tell them how badly he felt about loosing the patient. He wished he could do more. He had the patients feeling sorry for him, and the patient's family. But he was sincere about, you could see the sincerity. I used to marvel at this.

SCHANKE: Aren't you sort of led in surgery not to feel that way? To adopt a rather cold attitude toward patients?

DR. DeBAKEY: Well, yeah, I think some do, but I was some influenced by him, I never have, I'm just as involved with the patient as he was. The only difference is that I get depressed when the patient goes bad and I get upset and I feel I have failed. Well, he never did get that way. He was still enthusiastic and optimistic and felt good , I mean not he would feel good in the sense that he had lost a patient, but he didn't feel the sense of despondency that I get when I loose a patient and I don't know why. I think it's the

DR. DeBAKEY: difference in our nature. He was a very warm, compassionate person, but he had this tremendous sense of optimism and vigor of life, he was so willing----it was such an eager, wonderful thing for him that he never did get depressed. I never did learn that from him, couldn't do that. I still get it, and he never did have that built into him.

SCHANKE: In adopting a technique for dealing with patients as you do, part of this stems from your personality and your nature, and part of it from emulation of people you admire, would you contrast Ochsner against someone else who you've served at the same time?

DR. DeBAKEY: Yeah, I remember one surgeon, for example, a man by the name of Irvin Mayes, who I admired because he was a good surgeon and had a kind of a dignified demeanor; dressed well, looked well, but his attitude was a kind of a distant one with the patients. He sort of looked down on the patients, not, I don't mean by that, a sense of contempt, but he had such a

DR. DeBAKEY: sense of dignity about himself that he couldn't bring himself down to a rapport with the patient on a human level. He was a kind of a god and....

SCHANKE: Professionally aloof.

DR. DeBAKEY: Yes, very, very much so. He didn't appeal to me at all in the way he handled patients. I didn't much care for the way he dealt with patients, even though he was a good surgeon and I admired that about him.

SCHANKE: You often hear that the patient's attitude, the patient's own desire to get well has a very strong bearing on.....

DR. DeBAKEY: Oh, yes, and I think that you have a strong bearing on that, in your rapport with him. I mean, you've got to give him a sense of confidence and assurance and _____ his anxiety and so on, to get him well. Makes him want very much to get well. Of course, some of them have it already, you know, they figure I'm gonna get well, by God, no matter what. But the great majority of people who get sick, have a sense of concern about themselves. The illness itself produces that.

SCHANKE: Mike, is it painful for you now to talk about Diana?
Or would you rather save that for a later session?

DR. DeBAKEY: Let me save it for a little later, Don. I am just
sort of getting a little over it and I...if I start
reminiscing again, I think I'll....I may kind of
It may be a little too painful for me.

SCHANKE: Well, don't let me draw you into that.

DR. DeBAKEY: Yes, I'll come to it sometime. Because she naturally
played a very important role. But coming back to
Dr. Ochsner for a minute, I had many.....I became
involved with him in a number of other areas besides
just my role as his student. He had an influence upon
my writing, too, because he was constantly after me
to write, or to get this written, and he set a schedule
for me of meetings and so on, and I learned this from
him, to schedule a deadline, that pushed me right to
the limit to get all this work done. And this was...this
had a great influence on me. He was scholarly in the
sense that he wanted things done well, he wanted me
to be sure, he'd check me in ...about the research work

DR. DeBAKEY: that I did, the literary research that I did and he was a voracious reader. He'd be up until late at night and he would....he was an early riser, so he only slept about four hours, too.

SCHANKE:were so nice at that time...

DR. DeBAKEY: Oh, yes, we just hit it off perfectly. He taught me something about scientific writing. I never.... I was never a great admirer of his style of writing, because it was not in the more classical style. It was very simple, straight forward. He liked simple things, I remember one time I wrote an article and he said, "You got too many words, you know, a polished lobby."

I liked to try to find the word that I thought fitted best. So I was constantly thumbing through a book of synonyms and checking the dictionary and getting the shades of meaning of various diffinitions that were given and so on. He would not agree with us, he said there wasn't any point in finding another word, one of a very simple word. So he did teach

DR. DeBAKEY: me something about that , you know.

SCHANKE: You must have _____ English instructor
to perjury.

DR. DeBAKEY: I was....I had, in college, I had....I liked English literature and the professor of English literature , the Scotchman, McKutchen, that's not quite right, anyway, he called me in one day and he said , "Are you interested in literature?" And I said, "Yes, I am." He said, "But your major is in zoology and biology, isn't it?" And I said, "Yes." He said, "Well, you've got a flare for it, and I would like to see you go on with this literature a little bit." I said, "Well, that's very kind of you, and I'd like to, but I really need to devote more of my time to the science area, this is what I'm going into and I hope to go into medicine." So he said "Well, it wouldn't hurt you to learn more about literature." You're.....you've got a flare for it and I would like to see you do more. My thesis that I wrote for him, and he was considered the kind

DR. DeBAKEY: of bear by all of the students. I was tremendously impressed by this, his calling me in and telling me this. I walked out of his office like I was on cloud nine.....

SCHANKE: He liked your analytical approach to literature?

DR. DeBAKEY: Yeah, he liked what I had done. He told me he had read my paper, and he said, "You know, I am very pleased, I like this." So, II liked to write and to work with words, it fascinated me. I wanted to learn more about this, so II liked what I... I mean, there are certain authors whose works that I have read that I like very much, and I like their literary style. More of a classical style of writing. Well, I liked, for example, I remember when we got to....in English literature, when we got to , we had a section devoted to English poets and I remember when we got to the....to Gray's Elegy in a Country Church, I thought that this fellow , I thought he was a genius. I mean, his words just flowed in such a beautiful way, he ...it seemed to me he selected

DR.DeBAKEY: just the right words. I think, I would try to think of a better word and I couldn't. It just seemed perfect. He was a champ. Then when we got into this, I was assigned, because I was so fascinated with it and I told the professor about it, and he said well, I think you might be interested in reading this and he gave me a reference to go get which I did and there was Gray's Elegy in the form in which he had originally submitted it and put all the corrections . And, of course, this changed my whole approach to it.

SCHANKE: When you saw that it was disciplined, hard work .

DR.DeBAKEY: And then I realized, yeah, this fella, I could see him just sitting and pouring over this and scratching it out, putting another work in and I realized , this really made me suddenly realize that it wasn't just plain talent and genius, it was a lot of hard work. And this is what he was trying to tell me. So he taught me a very good lesson.

SCHANKE: And it applies to medicine, too.

DR. DeBAKEY: It applies to everything, you see. It really applies to everything. So, when....and that had a profound effect upon me, because after that whenever I would write anything, I could sit there hours sometimes on the first paragraph and in writing an article, I'd sit sometimes for HOURS on the first paragraph, scratching and changing and going back. And that's really why even today, if I'm writing something in a hurry, I will not dictate it, because I can write it.....I learned in those early days, to write and think with a pencil in my hand.

SCHANKE: Do you write in long hand....you don't write on a typewriter?

DR. DeBAKEY: That's right. No, I don't write on a typewriter. I'm too slow on the typewriter and secondly, I didn't, when I was in that phase of my training, I used the typewriter of course, I used to use the typewriter in the store in the office and in preparing letters for accounts and so on. But, I never used the typewriter in my school work. I did it with a pen and pencil. So, now, even today, if

DR. DeBAKEY: I'm gonna write something that I need to write in a hurry, in a big hurry, I will write it in long hand because I can think and write at the same time, and secondly, it'll take me a shorter time to do it, because by the time I have written it in long hand, it is virtually in complete form.

SCHANKE: You've corrected it as you go.

DR. DeBAKEY: That's right. It's virtually in complete form. Whereas if I dictated, then I usually have to correct it two or three times.

SCHANKE: Did you actually start publishing papers when you were a senior in medical school?

DR. DeBAKEY: Yes, that's right.

SCHANKE: Was that your senior thesis in physiology of smoking? Was that one that was published.

DR. DeBAKEY: No, that was....I was a sophomore. But, I started publishing papers when I was, scientific papers when I was, I guess I really started when I was a senior in medical school.

SCHANCHE: You've written more than most professional authors, haven't you ?

DR. DeBAKEY: Oh, yes, I've written far more, far more, but that's to a large extent the influence Dr. Ochsner had on me.

SCHANCHE: He set you up on a schedule with deadlines.

DR. DeBAKEY: Yes, that's right.

SCHANCHE: How did he do this?

DR. DeBAKEY: Well, he did it in a very subtle way. He would say to me, "We have an invitation to present a paper in such and such a place, and we'll need to prepare a paper for this." Or, "The meeting of the Thoracic Society will be on such and such a date, and we ought to get together our experiences of such and such and put them in a paper on this." And he had enough of these schedules all along, so I was running all the time. And there were times, when for example, I remember one time, he was going to a meeting and I had to rush down, I had worked all night, to get the paper ready, and completed for him with the slides and so on, and I met him at the train. He went to this meeting on a

DR. DeBAKEY: train, I think it was in Chicago or in St. Louis or someplace like that, and he was taking the train. Because in those days, you know, you didn't have the kind of flight schedule that we have today. And I met him early in the morning at the depot, at the train and gave him the paper.

SCHANKE: How did you determine in those days, who was to be the senior author?

DR. DeBAKEY: Oh, he did that.

SCHANKE: And at what point in your professional life did you become senior author and.....

DR. DeBAKEY: Well, there were some papers that I wrote myself, that he didn't have anything to do with at all.

SCHANKE: Well, I noticed on some of your papers most of the early ones Ochsner first and DeBakey second and then a few along about 1939.....

DR. DeBAKEY: Well, he decided. He decided.....I let him do that. I always gave him my manuscript, I was very respectful in that regard and I didn't ...I never asked who was to be the senior author. I trusted him completely to make

DR. DeBAKEY: that decision. A great majority of the papers I wrote completely. He may have made some corrections, but I wrote the paper, and I did all the work. Even though he was the senior author, and it was a kind of customary thing in those days, too, you worked under your chief and he was your chief. You didn't question it. He wasn't taking or trying to get credit, in a certain sense, because basically he was assuming responsibility for all of us. I was a kind of----his technician of preparing these things. But, then sometimes, he would say, "I want you to be senior author on this." Well, later on, he made me senior author on a number of them. Then there were some that I wrote myself, he didn't have anything to do with at all. Then, later, you know, that influenced my decision of dealing with some of my people when I went to Houston. I made some of them senior authors largely to give them, even though I had written all of it.....

SCHANKE: To give them a boost.

DR. DeBAKEY: To give them a boost and to push them along, and to stimulate them perhaps to do more. I would make them senior author.

SCHANKE: Well, this is under another subject I want to talk about, Ochsner I gather was a superb teacher.

DR. DeBAKEY: Yes, a very good teacher.

SCHANKE: You learned your pedagogical techniques from him. In this area, what did you learn, what did he do that impressed you?

DR. DeBAKEY: Well, one thing in teaching that he impressed me withand made me conscious of was the visual aid. He was great for presenting in his teaching, visual aids. He would make drawings and he would try to develop diagrams and try to develop visual aids to go along, especially with concept and so on.

SCHANKE: You didn't use movies in those days?

DR. DeBAKEY: No. That....well, we did make a few very amateurish movies, but that came along much later. In fact, I was the one that initiated the movie thing in my own department at Baylor. As a further extension of visual

DR. DeBAKEY: aids. But he did impress me with this....his teaching too and he also tried to reduce things with the simplest form of visual aids, which I think it..... (telephone)

.....we had hoped he might be able to come and be on the show with us, but he's got this thing coming up with the discussion of the departments with department's concern about a bill that Rogers is putting in on heart disease, and of course, he wants to be sure.....he really has to be there to protect the interest of the heart lung institute.

It's rather curious, the attitude administration,, you know, they're scared to death there's more money and more effort being made in heart disease and that it will interfere with our.....

I don't know.....it's typical of people who aren't secure in the position they are in.It was given to me by Morris Fishbein. I saw him in Florida.

And somehow we got to talking about some of the experiences he and I both have had.....

SCHANKE: Is this something he wrote in 1968?

DR.DeBAKEY: No, No. It's interesting because he said to me, he said you know I want to give you something that I ran into years ago when I had had experience with several people who were shooting me down and trying to undermine me and so on. And he said it's part of the penalty of leadership, he said, I ran into this, somebody pointed it out to me. And the interesting thing is that this was an ad by the Cadillac Corporation but it's so.....it's really well done and some of it is so true. This is the penalty of leadership. He was talking about some of his early experiences people in medicine. And I was telling him about some of my experiences, which he already knew about.

SCHANKE: Incidentally, are you....what is the content of the Susskind show? Are they on to artificial hearts this week, or.....? I saw a paper, I thought maybe,....

DR.DeBAKEY: I.....well, n-----I really. No, it's not a.... No, this had been scheduled long before that was

DR. DeBAKEY: announced and I presume it's just talk about the current status of the problems of heart disease, what you can do about them and what research and advancements have taken place and so on. There are going to be three people on the show. One is Pete Aarons who is primarily interested in the study of arteriosclerosis and lipids and so on at the Rockland University, he's an old friend of mine. And a cardiologist here in New York by the name of, at Cornell, by the name of Rosenfeld.

SCHANKE: Oh, I met him in Houston. He stopped with Danny Kaye.

DR. DeBAKEY: Yeah, you met him. That's right. And myself, the three of us. I don't know what, when for sure we are going to be shown. I really don't know very much about the Susskind television production. I gather that he does these things and then sells them or puts them

SCHANKE: They're syndicated and here they're on a Sunday night I think I've watched part of a show last night. He had a madam from Evansville, Indiana, on his show, the most consummately evil nice-looking old lady you ever saw.

DR. DeBAKEY: Really? Isn't that interesting.

SCHANCHE: Yeah.

DR. DeBAKEY: Well, you know, heI was amazed he was doing this on heart disease because from what I had heard about him and the few things, few shows that I've seen that he has done have been in hotel rooms at night someplace. And I've come in and just before going to bed have turned the television on and to hear the news and suddenly see him on there with some group of hippies or homosexuals or.....

SCHANCHE: Usually trying to generate some very controversial

DR. DeBAKEY: Controversy, yeah. And so Imy image of him is not this, but they tell me he does some shows that are concerned largely with just bringing scientific or educational things to the people.

SCHANCHE: I don't care much for him and it hurts the professional...

DR. DeBAKEY: Oh, he doesn't appeal to me at all. At all. The only reason that I'm on this show is because really because of Rosenfeld, he's.....he'd tell me that he thought it

DR. DeBAKEY: would be a good thing for heart disease. We'd have the chance to have a forum to bring to the public some of the aspects of itthat we're interested in doing, particularly about providing more funds, and the public to be aware of the need for more funds to support it.

SCHANKE: You're on so many television shows you ought to join AVCO and get the union card. So you could at least get minimum for these shows.

DR. DeBAKEY: Well, my only interest in being on any of them is veryis to serve a purpose. And that's why I'm on this one, really, because I have a desire to make the public aware as much as I can . I think the more you can get the public to be aware of this the more support you'll ultimately get.

SCHANKE: Yeah, well, that's where the votes are and that's where the action in Congress..... Back to Dr. Ochsner as teacher and teaching techniques and what you've learned from him.....

DR. DeBAKEY: Well, that's what I'm coming....I mean, he had a great ability to take advantage of various visual aids to teach and he really taught me a great deal about visual aids. Because we didn't have at that time any special department of audio-visual and so on and he was a great teacher and in the sense that he liked to teach.

SCHANKE: Was he a good lecturer?

DR. DeBAKEY: He was a good lecturer, yes. Excellent. And hehis material was always extremely well organized he was a....he had a very well organized mind and he organized his material in outline form and then he would present his material, you know, he never talked from a manuscript, or notes. He had his.... he talked from slides and he would have some slides outlined, he'd have the outline and then he'dwithin the outline he'd have illustrations and so on. And so he taught me that, he taught me also the use of reference material as teaching guides and he had references that he'd give to the students. He taught me the teaching

DR. DeBAKEY: method by which you stimulate a student to go and seek the information and then checked him to see if he'd gotten it . And while he gave

SCHANKE: As opposed as to just giving it to them?

DR. DeBAKEY: That's right. Well, he did. He gave....he did both. He gave a series of lectures and then he had what he called quiz sessions based upon a series of reading lists andthat he gave you and brought this up to date. And I just took over all of these things in my own teaching methods and elaborated on them and tried to improve upon them and I think I did in some respects.

SCHANKE: What did you call him then ? Did.....was he called The Professor as you are now called The Professor by your students.

DR. DeBAKEY: No, we called him Chief.

SCHANKE: Chief?

DR. DeBAKEY: Everybody called him Chief.

SCHANKE: Did he talk, in his lectures, like as he wrote, with straight simple sentences?

DR. DeBAKEY: Yeah. That's right. He was very straight forward and very simple in his language and oh, he, don't miss

DR. DeBAKEY: understand me, he was fairly scholarly. He had a good educational background and he was a voracious reader and he knew a lot. Even, he knew some things about grammar. I thought I was supposedly grammarian because I tried to learn grammar, and sometimes I'd get to discussing the dated form and I could see very quickly that he knew something about the dated forms too. So, I never argued with him a great deal, but I had a great sense of appreciation for him as an individual. He's really a great person and obviously a man of tremendous intelligence, he's a great intellect. But he could fool you in this regard because he was such a simple man, he never put on any airs and he didn't speak with a great sense of profundity and he never used a polished or elaborate word when he could use His taste were simple. Now, but he was so devoted to surgery that he was primarily a surgeon, and a hell of a good one, too. I wouldn't say that technically he.....in all areas, he was the best surgeon I saw work, but he was good in

DR. DeBAKEY: everything he did. Skillful. He had his own way of doing things. And I think reasonably efficient.

SCHANKE: Was he an inventive surgeon?

DR. DeBAKEY: No. Not a highly inventive surgeon. And he didn't really have a very inventive mind either, he was not a great innovator. He was an improver and he would reduce some forms torelatively simple ways more effective ways. But I wouldn't regard him as an innovative person.

SCHANKE: Well, did you take his ~~and~~ or emulate him as a teacher when you began to teach? You began to teach at Tulane.

DR. DeBAKEY: Yes. Well, I started at Tulane. But when I went to Baylor I transported many of his ideas and methods because I found them very successful and I liked them.

SCHANKE: And that's why you began the audio-visual center?

DR. DeBAKEY: Yeah, that's right. I wantedI've put great emphasis on the audio-visual and I sort of did some innovations in audio-visual, too. One of which was the super-imposition of different forms on the same slide, both in color and in black and white and x-rays and

DR. DeBAKEY: things of that sort. And this was one of my developments, in fact the artist that I tried to get to do this originally said it couldn't be done. And I had to show him how to do it.

SCHANKE: When you went to Europe, tell me about this....the emphasis the motivation for going and what you did.

DR. DeBAKEY: Well, the motivation for going was to get more education and in a broader area and secondly to get specific training in the vascular surgical, sort of innovative developments of Leriche. Leriche was a pioneer.

SCHANKE: He was already world famous, wasn't he, the leading vascular surgeon.

DR. DeBAKEY: Yeah, that's right and he'd already gained an international reputation and was....Leriche was an entirely different kind of person than Dr. Ochsner. Leriche was first a typical Frenchman and therefore less I mean, more of a kind of philosopher or scholar and he was a great....he had great interest in the history of medicine and history of art, he was a much more

DR. DeBAKEY: cultured person , if you want to define him that way.....

SCHANKE: Sort of a Voltaire of surgery.

DR. DeBAKEY: Yeah, you know, he was also more flowery in his language , more scholarly, if you wanted to say in the sense that he was a scholar, really. He would intersperse his lectures with stories that reflected his great background in the history of art and medicine and paintings and sculpturing and I remember one time he told the story of a rosetta stone and how it was found in one of his lectures, you see, he referred to this. One time he was telling us about there was a patient, all the time he was lecturing he had patients in the ampitheater, describing various cases, and he had a patient with a kidney stone and he told about this patient and he told about this painting , you know, the anatomist, well, that painting, this famous painting by the Dutch painter, a great Dutchman, anyway....he was a doctor, and he was the physician who was in charge of public

DR. DeBAKEY: health in Holland at the time of Napoleon over ran them. And one time he told this story, Leriche told this story about him, he said, that one time, Napoleon was in his carriage driving along the roadway on ...along one of the canals and this man had to institute the policy , the sanitation policy that the roads would be blocked for certain period of time when they would be washed and cleaned . And during the time that they were blocked, the rule was nobody was to pass, one time Napoleon was in his carriage, he was in a hurry to get from one point to another, and his carriage was coming along this roadway and all of a sudden they found it blocked , they were washing the road. And the carriage driver got out and said you've got to move this, I'm very important person and we need to go on this road. And the guard said it doesn't make any difference how important he is, he said, he could be Napoleon, he said, you can't get across this road, this is the order..... so this

DR. DeBAKEY: man told him, he said, he is Napoleon. And the guard started shaking a little bit and said well what I am I gonna do. I have orders. He said you better come and tell Napoteon. So he walked up with him to the carriage and told Napoleon, and Napoleon said who ordered it? And he told him that it was the doctor that was in charge of all the sanitation. Well, Napoleon wa s very impresssed with this and he told his driver , he said , let's find.....

END OF SIDE B, Tape No. 3